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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,414	02/17/2004	Won-keun Yu	0100-P0017A	1308
66837	7590	10/16/2007	EXAMINER	
HYUN JONG PARK 41 WHITE BIRCH ROAD REDDING, CT 06896-2209				NGUYEN, DONGHAI D
ART UNIT		PAPER NUMBER		
3729				
MAIL DATE		DELIVERY MODE		
10/16/2007				PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/780,414	YU ET AL.
	Examiner Donghai D. Nguyen	Art Unit 3729

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

1) Responsive to communication(s) filed on 01 August 2007.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

4) Claim(s) 1-4,7-15 and 36-40 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-4,7-15 and 36-40 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 7-15 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,212,751 to Hattori in view of US Patent 6,434,264 to Asar.

This rejection is set forth in the previous Office Action, dated 5/3/07, paragraph 5.

### *Response to Arguments*

3. Applicants' arguments filed on August 1, 2007 regarding claims 1-4, 7-15 and 36-40 have been fully considered but they are not persuasive.

a) Applicants argued that "Hattori fails to disclose or teach (i) that a control unit have a display unit connected for displaying the surface images of the circuit board taken by the camera, in which the surface images include a first image representative of a portion of the surface of the circuit board and a second image representative of substantially the entire surface of the circuit board" (see "Remarks" pages 6 and 7). The Examiner disagrees because the claims directed to an apparatus and the reference to Hattori discloses all the structured elements recited in the present claims such as the control unit (160) has a display unit (186) connected (as shown in Fig. 6) for displaying the surface image (see Figs. 12 and 13) of the circuit board (24) taken by the camera (56). Note: Hattori is silent regarding the "displaying the surface images include a first

image representative of a portion of the surface of the circuit board and a second image representative of substantially the entire surface of the circuit board" and the Examiner relies on Asar reference for the teaching displaying a first image representative of a portion of the surface of the circuit board and a second image representative of substantially the entire surface of the circuit board for inspecting/judging the surface for the circuit board (see Col. 6, lines 31-44). Further, it is well known in the art that the display monitor (CRT) is capable of displaying multiple images/windows on its screen. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to use of the known technique as taught by Asar (i.e. displaying images include a first image representative of a portion of the surface of the circuit board and a second image representative of substantially the entire surface of the circuit board) to improve the apparatus of Hattori (faster inspection/judging the surface of the circuit board).

b) Applicants argued, "Hattori does not include any disclosure or suggestion that its control unit has a user interface which specifically allows a user to allocate (before positioning the pins) a plurality of support locations for supporting the circuit board with the back-up pins at locations not interfering with parts disposed on the circuit board while viewing the first image and the second image of the circuit board displayed on the display unit. Thus, Hattori further fails to disclose or teach the above-identified element (ii) of the invention as claimed" (see "Remarks" page 8, 2<sup>nd</sup> paragraph). Since Hattori disclosure the control unit (160) has a user interface (170/172) for allowing a user to control and modify the process of which can be used to modify the process of supporting the circuit board with the back-up pins at interfering or not

interfering locations disposed on the circuit board while viewing the display unit (see Fig. 13 and Col. 12, lines 18-62).

c) In response to applicant's argument that Asar is nonanalogous art (see "Remarks" page 11, 3<sup>rd</sup> paragraph), it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Both inventions (Hattori and Asar) are related to view the surface of circuit board for inspecting or judging the features/elements on the surface of the circuit board.

d) In response to applicant's argument that there is no suggestion/motivation to combine the references (see "Remarks" page 12, 2<sup>nd</sup> paragraph to page 13, 2<sup>nd</sup> paragraph), the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Asar teaches the use and display of multiple images of the circuit board speed up the inspecting/judging process of the circuit board (see Col. 3, lines 29-33). Furthermore, applicant's arguments against the references individually (see "Remarks" pages 7-13), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

*Conclusion*

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghai D. Nguyen whose telephone number is (571)-272-4566. The examiner can normally be reached on Monday-Friday (9:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (571)-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN

October 9, 2007



MINH TRINH  
PRIMARY EXAMINER